

A. PRODUCT INFORMATION

Name of the Product	: Hydrogen Peroxide - 50% w/w
Grade	: Technical Grade
Formula	: H ₂ O ₂
CAS Number	: 7722-84-1

B. PHYSICAL & CHEMICAL PROPERTIES

Appearance : Clear, colorless liquid free from suspended impurities and dust particles.

Odor : Slightly Pungent

Identification Test: : Complies

Shake 1 mL of sample with 10 mL of water containing 1 drop of 2 N sulfuric acid, and add 2 mL of ether. The subsequent addition of a drop of potassium dichromate TS produces an evanescent blue color in the water layer that upon agitation and standing passes into the ether layer.

Boiling Point @ 760mm Hg, °C : 114

Freezing Point °C : (-) 52

Active Oxygen (%) : 23.5

Shelf Life/Re-test date : 12 months from date of manufacturing, under recommended storage conditions.

C. SPECIFICATIONS

#	Parameters	Units	IS 2080: 2021	Specifications	Method of Analysis
1	Strength of H ₂ O ₂	% w/w	Min. 50.0	Between 50.00 to 50.80	By KMnO ₄ Titration
2	Stability as O ₂ emitted /25 ml sample at 100 °C	ml/minute	Max. 0.3	< 0.30	By Gasometric
3	Acidity (as H ₂ SO ₄)	gr/100ml	0.015 - 0.05	< 0.05	By NaOH Titration
4	Residue on evaporation at 105 °C	gr/100ml	Max. 0.20	< 0.20	By Evaporation
5	Residue on ignition	gr/100ml	Max. 0.05	< 0.05	By Ignition
6	Iron (as Fe)	ppm	Max. 1.0	< 1.0	By Colorimetric
7	Copper (as Cu)	ppm	Max. 0.1	< 0.1	By Colorimetric
8	Lead (as Pb)	ppm	Max. 10.0	< 2.0	By Colorimetric
9	Arsenic (as As ₂ O ₃)	ppm	Max. 2.0	< 0.5	By Modified Gutzeit method
10	Apparent pH	--	--	Between 0.5 to 2.5	By PH Meter
11	Specific gravity @ 20 °C	gm/cc	--	Between 1.190 to 1.195	By Hydrometer

Note: The Product meets requirements for Stabilized hydrogen peroxide, Grade 3 of Indian Standard IS 2080: 2021

D. Transport

Transportation should take place between -25°C and 60°C, though elevated temperatures (>40°C) should be avoided if possible.